

**REMARKS**

The independent claims have been amended to explicitly indicate the no plasma is applied to the plasma polymer coating after it has been formed. This conforms the claims to the working examples, and also to the specification on pages 5 and 6 which points out that the polymer resulting from the plasma polymerization has residual polymerizable groups and those groups form the reaction product with the radiation curable composition. Applicant appreciates the Examiner's notation of the obvious typographical error in claim 1 and this has been corrected in the above amendments.

The dependency of claim 18 has been corrected.

The Examiner's comment about claim 9 is noted but it is respectfully submitted that the difference is not nominal as this claim provides the formation is effected by (or at the direction of) the entity performing the method of claim 1, whereas claim 1 permits the formation to have been done by an independent third party.

It is respectfully submitted that the rejection of claims 1, 5-7, 9-12, 16 and 17 under 35 USC § 102 and of claims 2-4 and 13-15 under 35 USC § 103 over Daimon should not be repeated.

Daimon teaches a fiber substrate which has been subjected to a surface treatment, and then a curable composition is applied to that surface and crosslinked and cured. The purpose of the surface treatment is to change the surface tension of the

surface, thereby allowed better wetting of that surface and resulting in better adhesion by the subsequently applied coating. While the surface treatment is preferably corona discharge, other surface treatments such as plasma polymerization can be used. The plasma polymer resulting from the plasma polymerization thus exists as a new surface covering the prior exterior surface of the fiber substrate. Daimon teaches this new surface will have a different surface tension compared to the fiber surface.

This reference does not, however, teach that in the event that plasma polymerization is employed, the resulting plasma polymer coating will contain any residual unpolymerized polymerizable functional groups. Indeed, the Office Action even concedes “Daimon et al.’s process may not...provide [residual polymerizable groups]” at page 4, lines 1-3. The reference does not suggest any reason such groups would be desired. To the extent that Daimon contemplates plasma polymerization, it is to create a new surface and not to leave residual unpolymerized groups present. The last two lines of application page 5 point out that in this invention, the prior art plasma polymerization process is modified so as to leave such residual unpolymerized groups. Daimon does not teach or suggest any reason to modify the art plasma polymerization process.

Daimon teaches a curable composition is applied to the treated surface, and the curable composition itself is cross-linked and cured. Forming a new surface over the substrate surface by forming a polymer (by plasma polymerization or otherwise) may mean that the new surface presented for further coating has a different surface tension, but it does not mean there were residual polymerizable groups present on the plasma polymer. Describing applying a curable coating to a surface (which is all that

Daimon does disclose) does not suggest forming a reaction product with that surface. Saying a curable coating composition containing an unsaturated entity and reactive diluent becomes cross-linked does not suggest or imply the cross-linking is with some third entity. The reference does not teach or suggest forming any type of reaction product between the curable composition and residual unpolymerized polymerizable functional groups of a plasma polymer.

That there may be enhanced adhesion does not “imply” linking to the surface as proposed in the last Office Action, especially since the degree of adhesion is influenced by the wettability of one material by another, and changing surface tension changes wettability, as the Office Action itself points out on page 12. Since there is no factual basis in the record for the proposed “linking”, it must be based on an assertion of inherency. Such an assertion requires certainty, and neither a possibility or even a probability will suffice. No attempt has been made to establish the required certainty.

In view of this fundamental difference between the claimed invention and the reference, it is respectfully submitted that the rejections are untenable and should be withdrawn.

The rejection of claims 1, 5-7, 9, 11-12, 16 and 17 under 35 USC § 102 and of claims 2-4, 10 and 13-15 under 35 USC § 103 over Vargo should also not be repeated.

Vargo teaches an adhesive-oxyhalopolymer composite in which hydrogen or oxygen groups bond the polymer to the adhesive. The “polymer” can possibly be in the form of a non-halogenated substrate on which a polymerized fluorocarbon coating has been applied (col. 7) and has thereafter been treated to substitute H or O or oxygen

containing groups for some of the halogen moieties. These are not residual unpolymerized polymerizable functional groups of a plasma polymer. Vargo also teaches that the oxygen containing groups and H can be used to bond the polymer to an adhesive, which can possibly be (but does not have to be) a radiation curable material. While the adhesive may be radiation curable, there is no teaching or suggestion that it forms a reaction product with residual unpolymerized polymerizable functional groups when radiation is applied, as in the claimed invention. In Vargo, the halopolymer must be bonded to the radiation curable adhesive before radiation is applied because once radiation is applied, the adhesive would be cured (set) and could not perform its intended function of bonding to something else. Vargo uses the H or O or oxygen containing groups to bond the polymer to the adhesive without eliminating the adhesive quality of the adhesive so that the polymer can be bonded to the something else via the adhesive.

The last Office Action suggested on page 5 that “plasma treatment of nonhalogen substrates” forms plasma polymers with residual groups. But plasma treatment and plasma polymerization are different, as evidenced by Daimon’s listing of them as separate surface treatments. Moreover, the instant claims exclude plasma treatment of the plasma polymerization polymer.

Vargo is fundamentally different from the present invention. The reference does not teach the claimed invention nor suggest that is there any reason to make the drastic changes necessary to convert what Vargo does teach into the claimed invention. Accordingly, withdrawal of these rejections is respectfully requested.

Claims 2-4, and 13-15 were rejected under 35 USC § 103 over Daimon in view of McGee, and claims 8 and 18-20 rejected under 35 USC § 103 over Daimon in view of McGee and either Goodwin, Willis or Kamel in the last Office Action. Neither rejection should be continued.

The applicability of Daimon has been discussed above. None of the McGee, Goodwin, Willis or Kamel references have been advanced to cure any of the basic deficiencies in Daimon, nor do they do so. Accordingly, these rejections are not tenable and should be withdrawn.

Likewise, the rejection of claims 8 and 18-20 under 35 USC § 103 over Vargo in view of Goodwin should not be repeated since Goodwin has not been asserted to cure any of the basic deficiencies in Vargo discussed above, nor does it do so.

In view of the discussion above, it is not considered necessary to discuss other assertions in the Office Action, and it should not be assumed that applicant agrees with any assertion not discussed.

In view of the above amendments and remarks, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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